$0^{3c0}$

# 12

ENTERED                                                    OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION:   US/09/709,103          DATE: 04/02/2002 (3/29/02
                                             TIME: 09:33:08

Input Set : A:\60388-a-pu.txt
Output Set: N:\CRF3\04022002\I709103.raw

```
 3 <110> APPLICANT: Cismowski, Mary
 4        Duzic, Emir
 6 <120> TITLE OF INVENTION: AGS Proteins and Nucleic Acid Molecules and Uses Therefor
 8 <130> FILE REFERENCE: 60388-A-PCT-US
10 <140> CURRENT APPLICATION NUMBER: 09/709,103
11 <141> CURRENT FILING DATE: 2000-11-08
13 <160> NUMBER OF SEQ ID NOS: 73
15 <170> SOFTWARE: PatentIn version 3.1
17 <210> SEQ ID NO: 1
18 <211> LENGTH: 846
19 <212> TYPE: DNA
20 <213> ORGANISM: Homo Sapien
22 <220> FEATURE:
23 <221> NAME/KEY: CDS
24 <222> LOCATION: (1)..(843)
25 <223> OTHER INFORMATION:
28 <400> SEQUENCE: 1
29 atg aaa ctg gcc gcg atg atc aag aag atg tgc ccg agc gac tcg gag
30 Met Lys Leu Ala Ala Met Ile Lys Lys Met Cys Pro Ser Asp Ser Glu    48
31 1               5                   10                  15
33 ctg agt atc ccg gcc aag aac tgc tat cgc atg gtc atc ctc ggc tcg
34 Leu Ser Ile Pro Ala Lys Asn Cys Tyr Arg Met Val Ile Leu Gly Ser    96
35                 20                  25                  30
37 tcc aag gtg ggc aag acg gcc atc gtg tcg cgc ttc ctc acc ggc cgc
38 Ser Lys Val Gly Lys Thr Ala Ile Val Ser Arg Phe Leu Thr Gly Arg   144
39             35                  40                  45
41 ttc gag gac gcc tac acg cct acc atc gag gac ttc cac cgc aag ttc
42 Phe Glu Asp Ala Tyr Thr Pro Thr Ile Glu Asp Phe His Arg Lys Phe   192
43         50                  55                  60
45 tac tcc atc cgc ggc gag gtc tac cag ctc gac atc ctc gac acc tcc
46 Tyr Ser Ile Arg Gly Glu Val Tyr Gln Leu Asp Ile Leu Asp Thr Ser   240
47 65                  70                  75                  80
49 ggc aac cac ccg ttc ccc gcc atg cgg cgc ctc tcc atc ctc aca gga
50 Gly Asn His Pro Phe Pro Ala Met Arg Arg Leu Ser Ile Leu Thr Gly   288
51                 85                  90                  95
53 gac gtt ttc atc ctg gtg ttc agt ctg gac aac cgc gac tcc ttc gag
54 Asp Val Phe Ile Leu Val Phe Ser Leu Asp Asn Arg Asp Ser Phe Glu   336
55                 100                 105                 110
57 gag gtg cag cgg ctc agg cag cag atc ctc gac acc aag tct tgc ctc
58 Glu Val Gln Arg Leu Arg Gln Gln Ile Leu Asp Thr Lys Ser Cys Leu   384
59             115                 120                 125
61 aag aac aaa acc aag gag aac gtg gac gtg ccc ctg gtc atc tgc ggc
62 Lys Asn Lys Thr Lys Glu Asn Val Asp Val Pro Leu Val Ile Cys Gly   432
```

file://C:\Crf3\Outhold\VsrI709103.htm

RAW SEQUENCE LISTING
PATENT APPLICATION:  US/09/709,103

DATE: 04/02/2002
TIME: 09:33:08

Input Set : A:\60388-a-pu.txt
Output Set: N:\CRF3\04022002\I709103.raw

```
 63     130                      135                      140
 65 aac aag ggt gac cgc gac ttc tac cgc gag gtg gac cag cgc gag atc      480
 66 Asn Lys Gly Asp Arg Asp Phe Tyr Arg Glu Val Asp Gln Arg Glu Ile
 67 145              150                      155                      160
 69 gag cag ctg gtg ggc gac gac ccc cag cgc tgc gcc tac ttc gag atc      528
 70 Glu Gln Leu Val Gly Asp Asp Pro Gln Arg Cys Ala Tyr Phe Glu Ile
 71              165                      170                      175
 73 tcg gcc aag aag aac agc agc ctg gac cag atg ttc cgc gcg ctc ttc      576
 74 Ser Ala Lys Lys Asn Ser Ser Leu Asp Gln Met Phe Arg Ala Leu Phe
 75              180                      185                      190
 77 gcc atg gcc aag ctg ccc agc gag atg agc cca gac ctg cac cgc aag      624
 78 Ala Met Ala Lys Leu Pro Ser Glu Met Ser Pro Asp Leu His Arg Lys
 79              195                      200                      205
 81 gtc tcg gtg cag tac tgc gac gtg ctg cac aag aag gcg ctg cgg aac      672
 82 Val Ser Val Gln Tyr Cys Asp Val Leu His Lys Lys Ala Leu Arg Asn
 83     210                      215                      220
 85 aag aag ctg ctg cgg gcc ggc agc ggc ggc ggc ggc ggc gac ccg ggc      720
 86 Lys Lys Leu Leu Arg Ala Gly Ser Gly Gly Gly Gly Gly Asp Pro Gly
 87              225                      230                      235                      240
 89 gac gcc ttt ggc atc gtg gca ccc ttc gcg cgc cgg ccc agc gta cac      768
 90 Asp Ala Phe Gly Ile Val Ala Pro Phe Ala Arg Arg Pro Ser Val His
 91              245                      250                      255
 93 agc gac ctc atg tac atc cgc gag aag gcc agc gcc ggc agc cag gcc      816
 94 Ser Asp Leu Met Tyr Ile Arg Glu Lys Ala Ser Ala Gly Ser Gln Ala
 95              260                      265                      270
 97 aag gac aag gag cgc tgc gtc atc agc tag                              846
 98 Lys Asp Lys Glu Arg Cys Val Ile Ser
 99              275                      280
102 <210> SEQ ID NO: 2
103 <211> LENGTH: 281
104 <212> TYPE: PRT
105 <213> ORGANISM: Homo Sapien
107 <400> SEQUENCE: 2
109 Met Lys Leu Ala Ala Met Ile Lys Lys Met Cys Pro Ser Asp Ser Glu
110 1               5                      10                      15
113 Leu Ser Ile Pro Ala Lys Asn Cys Tyr Arg Met Val Ile Leu Gly Ser
114              20                      25                      30
117 Ser Lys Val Gly Lys Thr Ala Ile Val Ser Arg Phe Leu Thr Gly Arg
118              35                      40                      45
121 Phe Glu Asp Ala Tyr Thr Pro Thr Ile Glu Asp Phe His Arg Lys Phe
122     50                      55                      60
125 Tyr Ser Ile Arg Gly Glu Val Tyr Gln Leu Asp Ile Leu Asp Thr Ser
126 65                      70                      75                      80
129 Gly Asn His Pro Phe Pro Ala Met Arg Arg Leu Ser Ile Leu Thr Gly
130              85                      90                      95
133 Asp Val Phe Ile Leu Val Phe Ser Leu Asp Asn Arg Asp Ser Phe Glu
134              100                      105                      110
137 Glu Val Gln Arg Leu Arg Gln Gln Ile Leu Asp Thr Lys Ser Cys Leu
138              115                      120                      125
```

RAW SEQUENCE LISTING
PATENT APPLICATION:   US/09/709,103

Input Set : A:\60388-a-pu.txt
Output Set: N:\CRF3\04022002\I709103.raw

```
 141  Lys Asn Lys Thr Lys Glu Asn Val Asp Val Pro Leu Val Ile Cys Gly
 142      130                 135                 140
 145  Asn Lys Gly Asp Arg Asp Phe Tyr Arg Glu Val Asp Gln Arg Glu Ile
 146  145                 150                 155                 160
 149  Glu Gln Leu Val Gly Asp Asp Pro Gln Arg Cys Ala Tyr Phe Glu Ile
 150                  165                 170                 175
 153  Ser Ala Lys Lys Asn Ser Ser Leu Asp Gln Met Phe Arg Ala Leu Phe
 154              180                 185                 190
 157  Ala Met Ala Lys Leu Pro Ser Glu Met Ser Pro Asp Leu His Arg Lys
 158          195                 200                 205
 161  Val Ser Val Gln Tyr Cys Asp Val Leu His Lys Lys Ala Leu Arg Asn
 162      210                 215                 220
 165  Lys Lys Leu Leu Arg Ala Gly Ser Gly Gly Gly Gly Gly Asp Pro Gly
 166  225                 230                 235                 240
 169  Asp Ala Phe Gly Ile Val Ala Pro Phe Ala Arg Arg Pro Ser Val His
 170                  245                 250                 255
 173  Ser Asp Leu Met Tyr Ile Arg Glu Lys Ala Ser Ala Gly Ser Gln Ala
 174              260                 265                 270
 177  Lys Asp Lys Glu Arg Cys Val Ile Ser
 178          275                 280
 181  <210> SEQ ID NO: 3
 182  <211> LENGTH: 1801
 183  <212> TYPE: DNA
 184  <213> ORGANISM: Homo Sapien
 186  <220> FEATURE:
 187  <221> NAME/KEY: CDS
 188  <222> LOCATION: (154)..(996)
 189  <223> OTHER INFORMATION:
 192  <400> SEQUENCE: 3
 193  ggaattccga gcggagccgg agccccaagc ccgagccgcg cccagcccga gcagagccct      60
 195  ccagccgctc accccgcgtg ccacccagc gaccctcagc cgtctctctg ccttctctcg     120
 197  gccccgcgcc cgccctcgcg gcccctctgc cca atg aaa ctg gcc gcg atg atc     174
 198                                      Met Lys Leu Ala Ala Met Ile
 199                                      1               5
 201  aag aag atg tgc ccg agc gac tcg gag ctg agt atc ccg gcc aag aac     222
 202  Lys Lys Met Cys Pro Ser Asp Ser Glu Leu Ser Ile Pro Ala Lys Asn
 203          10                  15                  20
 205  tgc tat cgc atg gtc atc ctc ggc tcg tcc aag gtg ggc aag acg gcc     270
 206  Cys Tyr Arg Met Val Ile Leu Gly Ser Ser Lys Val Gly Lys Thr Ala
 207      25                  30                  35
 209  atc gtg tcg cgc ttc ctc acc ggc cgc ttc gag gac gcc tac acg cct     318
 210  Ile Val Ser Arg Phe Leu Thr Gly Arg Phe Glu Asp Ala Tyr Thr Pro
 211  40                  45                  50                  55
 213  acc atc gag gac ttc cac cgc aag ttc tac tcc atc cgc ggc gag gtc     366
 214  Thr Ile Glu Asp Phe His Arg Lys Phe Tyr Ser Ile Arg Gly Glu Val
 215              60                  65                  70
 217  tac cag ctc gac atc ctc gac acg tcc ggc aac cac ccg ttc ccc gcc     414
 218  Tyr Gln Leu Asp Ile Leu Asp Thr Ser Gly Asn His Pro Phe Pro Ala
 219              75                  80                  85
```

RAW SEQUENCE LISTING
PATENT APPLICATION:  US/09/709,103

Input Set : A:\60388-a-pu.txt
Output Set: N:\CRF3\04022002\I709103.raw

```
221 atg cgg cgc ctc tcc atc ctc aca gga gac gtt ttc atc ctg gtg ttc
222 Met Arg Arg Leu Ser Ile Leu Thr Gly Asp Val Phe Ile Leu Val Phe     462
223       90                          95                    100

225 agt ctg gac aac cgc gac tcc ttc gag gag gtg cag cgg ctc agg cag
226 Ser Leu Asp Asn Arg Asp Ser Phe Glu Glu Val Gln Arg Leu Arg Gln     510
227      105                         110                   115

229 cag atc ctc gac acc aag tct tgc ctc aag aac aaa acc aag gag aac
230 Gln Ile Leu Asp Thr Lys Ser Cys Leu Lys Asn Lys Thr Lys Glu Asn     558
231 120                         125                   130           135

233 gtg gac gtg ccc ctg gtc atc tgc ggc aac aag ggt gac cgc gac ttc
234 Val Asp Val Pro Leu Val Ile Cys Gly Asn Lys Gly Asp Arg Asp Phe     606
235                140                         145                   150

237 tac cgc gag gtg gac cag cgc gag atc gag cag ctg gtg ggc gac gac
238 Tyr Arg Glu Val Asp Gln Arg Glu Ile Glu Gln Leu Val Gly Asp Asp     654
239               155                         160                   165

241 ccc cag cgc tgc gcc tac ttc gag atc tcg gcc aag aag aac agc agc
242 Pro Gln Arg Cys Ala Tyr Phe Glu Ile Ser Ala Lys Lys Asn Ser Ser     702
243              170                          175                   180

245 ctg gac cag atg ttc cgc gcg ctc ttc gcc atg gcc aag ctg ccc agc
246 Leu Asp Gln Met Phe Arg Ala Leu Phe Ala Met Ala Lys Leu Pro Ser     750
247              185                         190                   195

249 gag atg agc cca gac ctg cac cgc aag gtc tcg gtg cag tac tgc gac
250 Glu Met Ser Pro Asp Leu His Arg Lys Val Ser Val Gln Tyr Cys Asp     798
251 200                         205                   210           215

253 gtg ctg cac aag aag gcg ctg cgg aac aag aag ctg ctg cgg gcc ggc
254 Val Leu His Lys Lys Ala Leu Arg Asn Lys Lys Leu Leu Arg Ala Gly     846
255              220                         225                   230

257 agc ggc ggc ggc ggc ggc gac ccg ggc gac gcc ttt ggc atc gtg gca
258 Ser Gly Gly Gly Gly Gly Asp Pro Gly Asp Ala Phe Gly Ile Val Ala     894
259              235                         240                   245

261 ccc ttc gcg cgc cgg ccc agc gta cac agc gac ctc atg tac atc cgc
262 Pro Phe Ala Arg Arg Pro Ser Val His Ser Asp Leu Met Tyr Ile Arg     942
263              250                         255                   260

265 gag aag gcc agc gcc ggc agc agc gcc aag gac aag gag cgc tgc gtc
266 Glu Lys Ala Ser Ala Gly Ser Gln Ala Lys Asp Lys Glu Arg Cys Val     990
267      265                         270                   275

269 atc agc taggagcccc gccgcgctgg cgacacaacc taaggaggac cttttgtta
270 Ile Ser                                                            1046
271 280

273 agtcaaatcc aacggcccgg tgcgccccag gccgggagcg cgcgcggact ggcgtctccc
275 ctcccggcga tccgccccca gcactgggga ggcgccactg aaccgagaag ggacggtcat   1106
277 ctgctccgga aggaaagaga acgggccaag actgggacta ttccccaccc ccggtccccc   1166
279 attgaggccc ccaaaacca taactttggg agcgagggcc cagccgaggg tggatttatc   1226
281 ttctcaaaga cctaagagtg agcgcgggt gggggaggga tgtgaagtta tccagcctct   1286
283 gctaggcttc aagaaaccgt catgcccgct tgagggtcag gacccacggg gcattatctt   1346
285 gtctgtgatt ccgggttgct gtgacagccg gtagagcctc tgccctcccg aaactaagcg   1406
287 gggggcgtg ggtcaaatca tagccaagtg acttgtttac atgtgagtga aactgcacaa   1466
289 aggaacacaa aacaaaactt gcactttaac ggtagttccg gtgtcaacat ggacacgaac   1526
291 aaaaccttac ccaggtgttt atactgtgtg tgtgtgaggt cttttaaagtt attgctttat   1586
                                                                        1646
```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/709,103

DATE: 04/02/2002
TIME: 09:33:08

Input Set : A:\60388-a-pu.txt
Output Set: N:\CRF3\04022002\I709103.raw

```
293 ttggtttttt aatatacaat aaaataattt aaaatggaaa aaaaaaaaaa aaaaaaaaaa
295 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa   1706
297 atctagaggg ccgcatcatg taattagtta tgaac                              1766
                                                      aagcggccgc tcgagcatgc
300 <210> SEQ ID NO: 4                                                   1801
301 <211> LENGTH: 281
302 <212> TYPE: PRT
303 <213> ORGANISM: Homo Sapien
305 <400> SEQUENCE: 4
307 Met Lys Leu Ala Ala Met Ile Lys Lys Met Cys Pro Ser Asp Ser Glu
308 1                   5                   10                  15
311 Leu Ser Ile Pro Ala Lys Asn Cys Tyr Arg Met Val Ile Leu Gly Ser
312                 20                  25                  30
315 Ser Lys Val Gly Lys Thr Ala Ile Val Ser Arg Phe Leu Thr Gly Arg
316             35                  40                  45
319 Phe Glu Asp Ala Tyr Thr Pro Thr Ile Glu Asp Phe His Arg Lys Phe
320         50                  55                  60
323 Tyr Ser Ile Arg Gly Glu Val Tyr Gln Leu Asp Ile Leu Asp Thr Ser
324 65                  70                  75                  80
327 Gly Asn His Pro Phe Pro Ala Met Arg Arg Leu Ser Ile Leu Thr Gly
328                 85                  90                  95
331 Asp Val Phe Ile Leu Val Phe Ser Leu Asp Asn Arg Asp Ser Phe Glu
332                 100                 105                 110
335 Glu Val Gln Arg Leu Arg Gln Gln Ile Leu Asp Thr Lys Ser Cys Leu
336             115                 120                 125
339 Lys Asn Lys Thr Lys Glu Asn Val Asp Val Pro Leu Val Ile Cys Gly
340         130                 135                 140
343 Asn Lys Gly Asp Arg Asp Phe Tyr Arg Glu Val Asp Gln Arg Glu Ile
344 145                 150                 155                 160
347 Glu Gln Leu Val Gly Asp Asp Pro Gln Arg Cys Ala Tyr Phe Glu Ile
348             165                 170                 175
351 Ser Ala Lys Lys Asn Ser Ser Leu Asp Gln Met Phe Arg Ala Leu Phe
352             180                 185                 190
355 Ala Met Ala Lys Leu Pro Ser Glu Met Ser Pro Asp Leu His Arg Lys
356         195                 200                 205
359 Val Ser Val Gln Tyr Cys Asp Val Leu His Lys Lys Ala Leu Arg Asn
360     210                 215                 220
363 Lys Lys Leu Leu Arg Ala Gly Ser Gly Gly Gly Gly Asp Pro Gly
364 225                 230                 235
367 Asp Ala Phe Gly Ile Val Ala Pro Phe Ala Arg Arg Pro Ser Val His
368             245                 250                 255
371 Ser Asp Leu Met Tyr Ile Arg Glu Lys Ala Ser Ala Gly Ser Gln Ala
372         260                 265                 270
375 Lys Asp Lys Glu Arg Cys Val Ile Ser
376     275                 280
379 <210> SEQ ID NO: 5
380 <211> LENGTH: 54
381 <212> TYPE: DNA
382 <213> ORGANISM: Artificial Sequence
384 <220> FEATURE:
```

**VERIFICATION SUMMARY**
PATENT APPLICATION:   US/09/709,103

DATE: 04/02/2002
TIME: 09:33:09

Input Set : A:\60388-a-pu.txt
Output Set: N:\CRF3\04022002\I709103.raw

L:557 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18
L:577 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19
L:597 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:617 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21
L:643 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22